

DESCRIPTION

Under this item the CONTRACTOR shall furnish and install steel traffic signal poles as shown on the plans and as ordered by the ENGINEER.

MATERIALS

The steel poles herein specified are to be used for suspending traffic signal heads and luminaires.

Poles shall be the anchor base type and shall be either round or multisided, continuously tapered construction 11.7 mm per meter of length. The pole shall have a steel base electrically welded to the butt end of the pole. The anchor base shall telescope the butt end of the pole shaft and shall be continuously welded on the inside bottom and outside top. The pole shall be 6.7 meters in length "3" gauge steel with a butt diameter of 275 mm and a bolt circle of 375 mm and have a minimum yield of 380M pascals in accordance with the latest ASTM specification.

The entire structure shall be hot dip galvanized in accordance with ASTM A123. The pole shall be one piece having no transverse joints or welds and no more than one longitudinal seam which shall be continuously welded and ground or rolled flush. Pole shall be of uniform cross section. The pole diameter shall be uniform at any cross section and the pole shall be straight. The poles shall be furnished with cast iron or aluminum removable pole caps and anchor bolt covers. Anchor bolt covers shall be attached to the base and pole by hex head bolts.

Galvanizing shall be in accordance with ASTM A123 specifications. Poles shall be furnished with a cast aluminum 9 mm dia. "J" hook bolted, or a 9 mm dia. Galvanized steel "J" hook welded, inside the top of the pole and at an elevation 300 mm above the point of attachment of the mast arms. A grounding not having 12 mm # 13 tapped hole shall be located on the inside of the shaft above the handhole. The poles shall have a 100 mm x 200 mm reinforced handhole frame and removable cover located 300 mm to 375 mm from the butt end of the pole. Pole shall be furnished with four 44 mm x 2286 mm, 413M Pascal anchor bolts. Each anchor bolt shall be threaded 150 mm minimum at the base end and supplied with galvanized hexagon nuts and washers and lock nuts for this end. Anchor bolts shall be threaded 150 mm minimum at the base end and be provided with a 100 mm x 100 mm x 25 mm SQ steel nut for this end. The top 300 mm of the anchor bolts shall be hot dip galvanized. The pole shall be supplied with two brackets placed at right angles for attaching mast arms and at the elevation as shown on the plans. The bracket shall be continuously welded to the pole through the use of gusset plates, and shall be tapped to receive 31 mm high strength bolts in accordance with ASTM A325 as shown on the plans.

The bracket shall be as shown on the plans. All welding shall be in accordance with the NYS Steel Construction Manual. All material shall be in conformance with NYSDOT Standard Specifications, Section 724-03 Material Requirement Section A, latest revision.

BASIS OF ACCEPTANCE

ITEM 686.820030M MAST ARM TRAFFIC SIGNAL POLE ANCHOR BASE (6.7 m)

Acceptance of poles covered by this specification will be based on manufacturer's certification of compliance with the specification requirements signed by an officer of the company. Detailed drawings of the poles shall be submitted with the certifications.

CONSTRUCTION DETAILS

Poles shall be erected as specified on the Plans, Standard Sheets or as directed by the ENGINEER. Pole and signal locations shown on the contract plans shall be field checked for any condition that may affect their placement; where changes are necessary the exact location will be determined by the ENGINEER. When field conditions require a change in pole position from that shown in the contract plans, the pole and mast arm length requirements may vary. It shall be the CONTRACTOR's responsibility to verify pole and mast arm length before ordering poles and mast arms.

Pole erection shall include installation of poles and attachment of fittings as specified on the Plans and Standard Sheets as follows:

- a. Anchor bolt covers
- b. Weatherheads and couplings, if required
- c. Service bracket, if required
- d. Pole gap
- e. Cabinet mounting fittings, plates, brackets as needed for the cabinet being installed, if required
- f. Reinforced couplings for wire entrances to cabinets, if required
- g. Field galvanizing shall be in accordance with Section 719-01 of the New York State Standard Specifications, latest revision.

METHOD OF MEASUREMENT

Poles will be measured for payment as the number of each unit furnished and installed in accordance with the contract documents or as directed by the ENGINEER.

BASIS OF PAYMENT

The unit price for each pole shall include all the items specified in the construction details and the necessary grounding system. Anchor bolts, pole assembly and erections and field galvanizing as required.

Payment will be made under:

<u>Item No.</u>	<u>Item</u>	<u>Pay Unit</u>
868.820030M	Mast Arm Traffic Signal Pole Anchor Base	EA